Reviewer's report

**Title:** New perspectives on vitamin D food fortification based on a modeling of 25(OH)D concentrations

**Version:** 2  **Date:** 23 September 2013

**Reviewer:** Margaretha Haugen

**Reviewer's report:**

actual problem put forward, especially in Nordic countries. The authors are putting forward an interesting model for vitamin D fortification for the German population, taking vitamin D intake from the diet and the concentration of 25(OH) vitamin D into account. The model is built on an earlier model from this group where dietary intake and sun exposure were correlated with 25(OH) vitamin D. The novelty of this work is to model which carrier for vitamin D fortification and when to fortify that would give the best result. How, easy it will be to practically apply the results of this modeling is not an issue of this article, but is a question you bear in mind reading the paper. The drawback with this model is the total amount of information you need and I guess most countries do not have all these variables at hand when deciding for different fortification strategies.

The method in the abstract is very unclearly described. To understand what this model include I need more information.

**Minor Revisions**

On line 66 the papers of Flynn and Rasmussen are referred to. While Flynn does not take supplementation into account Rasmussen’s model does. But I think it is not cited correctly in the paper. Rasmussen takes the high food consumers (the 95th percentile) into account but use the mean value for supplementation. In this text I read the opposite.


No numbers on the figures!

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests